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ABSTRACT

A small set of vocabulary development exercises was tried out in four classes in each of grades four, six, and eight. The instruction was derived from three general content areas: subject-area vocabulary, alternative language, and vocabulary from context. The tryout consisted of extensive pretesting, instruction, and posttesting. It was generally found that students in grades four through eight had considerable deficits in vocabulary skills and knowledge and that these deficits could be remedied through instruction of the sort used in the tryout. However, it was shown that additional work is needed to provide instruction that best teaches vocabulary skills and knowledge in a sound but interesting fashion and is appropriate for the grade level for which it is intended. (Author/FL)

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TRYOUT OF VOCABULARY DEVELOPMENT EXERCISES

Bruce Cronnell and Ann Humes

ABSTRACT

A small set of vocabulary development exercises was tried out in four classes in each of grades 4, 6, and 8. The instruction was derived from three general content areas: Subject-Area Vocabulary, Alternative Language, and Vocabulary from Context. The tryout consisted of extensive pretesting, instruction, and even more extensive posttesting. It was generally found that students needed vocabulary instruction and that, after instruction, they made considerable gains in their test scores. While the tryout was, for the most part, successful in terms of student learning and interest, specific problems were noted that can be alleviated in the development of future vocabulary instruction.

CS004 815

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TRYOUT OF VOCABULARY DEVELOPMENT EXERCISES

Bruce Cronnell and Ann Humes

Adequate development of vocabulary skills is essential to children's use of language in speaking, listening, writing, and reading. While there has been some research into the learning of vocabulary, very little systematic instruction is either available or used in the school (Humes, 1976b). SWRL proposes to design and develop instruction in vocabulary for use in grades 4-8. The tryout reported in this paper represents an initial investigation into the ways in which effective and efficient vocabulary development instruction can be used in the schools.

The tryout was undertaken to answer several general questions, including the following:

How well can students work independently of teachers?

Can the same methods of instruction be used at both the junior high and elementary levels?

When instruction is in the written mode, how much transfer is there to oral comprehension and production?

Can audio tapes be used to aid in the learning of vocabulary?

How well can students and teachers judge the appropriateness of an answer when there are a number of different yet correct responses?

How well can students learn to identify the meanings of words through context?

Can precepts from research in concept learning be used in vocabulary instruction?

Can subject-area vocabulary be taught separately from the teaching of subject-area content?

The answers to these questions, as well as the other information acquired in the course of the tryout, will help to determine the design specifications for a vocabulary development program.

PARTICIPANTS

Twelve classes were used in the tryout, four at each of the following grade levels: 4, 6, 8. All classes were in suburban Southern California schools in middle-income areas; all classes were believed to be of average ability for their schools.

School A was a K-6 elementary school. Participating were a fourth-grade class, a combined fourth- and fifth-grade class (in which the fifth-grade students were said to be working below fifth-grade level), and two sixth-grade classes. Each class was taught by a different teacher.

School B was a K-5 elementary school. Participating were two fourth-grade classes, each taught by a different teacher.

School C was a 6-8 middle school in the same district as School B. Two sixth-grade classes and two eighth-grade classes participated. The two participating teachers each taught one sixth-grade and one-eighth grade class.

School D was a 7-9 junior high school in a third district. Two eighth-grade classes participated, each taught by a different teacher.

MATERIALS

Humes (1976a) has specified five general areas in which vocabulary development instruction should be provided: Subject-Area Vocabulary; Alternative Language; Vocabulary from Context; Word Structure; and Roots, Affixes, and Affixation Processes. The latter two areas relate to previous SWRL experience in developing instruction for reading and spelling, and thus were not included in the tryout. Segments of content from the remaining three areas were used to construct prototype instructional materials for the tryout. Choice of these segments depended considerably on the availability of specified item content to work with, on the appropriateness of the content for the grade levels included in the tryout, on the need for a variety of content types, and on the usefulness of such content in providing answers to the tryout questions. The following eight units of instruction were prepared:*

Subject-Area Vocabulary: Social science
- Geography: forest, prairie, desert, clearing, oasis, marsh, flood plain, river basin
- Economics: goods, product, market, economics, wholesale, retail, consumer, investment, capital

Alternative Language
- Synonyms for look: glance, glimpse, gaze, stare, gape, glare, peer, squint, peep, peek

*All instruction was developed and written by Ann Humes, who also specified the type of practice items. Practice items were written by Humes, Elaine Bender, Mary Rhode, and Bruce Cronnel.

Later documentation will describe the selection, processing, and defining of vocabulary terms and skills taught.

Terms of specificity for dog (breed names for dogs in the working class): collie, German Shepherd, husky, Samoyed, Great Dane, Saint Bernard, boxer, Doberman pinscher
Terms of specificity for phobia: zoophobia, claustrophobia, agoraphobia, acrophobia, hemophobia, hydrophobia, algophobia, necrophobia

Vocabulary from Context
Example
Groupings
Comparison

Each of the eight units was divided into 2-4 daily lessons. Most of the lessons contained both instruction and practice, although the last lesson in each of the Alternative Language and Subject-Area Vocabulary units did not contain new instruction.

The instruction and practice were written using words generally learned by the end of third grade. A few other essential words were included. Such words, which might not be in students' reading and/or meaning vocabularies, were listed in the the teacher's notes for each unit, which summarized the content and noted possible difficult areas.

Accompanying the materials for each unit was a set of answer keys, which permitted students to correct their own papers.

Subject-Area Vocabulary materials

Subject-Area Vocabulary was taught using concept-learning strategies. Lessons 1-3 in each unit taught 2-4 terms. The terms were defined and the critical attributes (called "important features" in the instruction) of the terms were listed. Illustrations, examples, and/or comments were also given for each term. The instruction section of each lesson concluded with a brief review of the lesson's content. Lessons 2-4 began with review of the content from the immediately preceding lesson.

Lessons 1-3 provided four kinds of practice exercises

1. Selecting the appropriate critical attributes of each term.
2. Reading a sentence or group of sentences and determining
   a. whether or not a term was being described, or
   b. which term was being described.
3. Selecting the appropriate word for a sentence.
4. Writing the missing critical attribute(s) for a term.

Lesson 4 in each unit had no new instruction. One exercise required students to select the appropriate word for a sentence. The second exercise required students to write all the critical attributes for each term.

Alternative Language materials

The instruction for Alternative Language varied depending on the specific head word being taught, although there were commonalities across the three units.

look: Each of the first three lessons contained 2-4 synonyms for look; some of the synonyms were taught with two (related) meanings. Each synonym was defined and then used in a sentence, which was illustrated by a picture. Then comment was made about why this synonym was appropriate for the sentence. In the first lesson, instruction was also provided on the use of prepositions after synonyms for look. The instructional section of each lesson concluded with a brief review of the lesson's content. Lessons 2-4 began with a review of all preceding content.

Lessons 1-3 provided two practice exercises: the first covered all synonyms presented through that lesson, with primary emphasis on the lesson content; the second covered only synonyms from that lesson. The first exercise required students to select from two or three choices the

synonym that best fit the sentence. The second exercise required students to generate the synonym that best completed the sentence.

Lesson 4 had no new instructional content. One exercise required students to select, out of all eight synonyms taught, the one that best fit the sentence. The second exercise required students to replace underlined phrases containing the word look with a more appropriate synonym.

Two additional versions of look instruction were prepared to vary the kind of presentation. One form used teacher-directed instruction instead of instruction in the student materials. Detailed teaching guides were provided, along with enlargements of the pictures used in the instruction. Student materials consisted only of the practice exercises. Teachers were requested to go over the exercises with students after they had been completed, explaining why the correct answer was the appropriate one.

The other version of the look unit consisted of audio tapes. The tapes presented all of the original instruction, while student sheets contained the accompanying pictures and example sentences. Students listened to the tapes while following their sheets and then were told to turn off the tape recorders while completing the exercises (which were the same as in the other two forms of the unit). The answers for the exercises were given on the tapes, along with explanations for why the answers were correct.

Classes receiving these two variations for look did not receive answer keys since answers were provided by either the teacher or the tape.

dog: Lesson 1 covered specific names for two categories of dogs within the working class: sheep dogs and sled dogs; lesson 2 covered specific names for kinds of guard dogs and police dogs. Each of these four classes was described and then each dog in the class was described in terms of its physical features: size, coat, ears, face, tail. (This presentation reflects aspects of concept-learning methodology.) When appropriate, specific capitalization was noted. The instruction section of each lesson concluded with a brief review of the lesson's content. Lessons 2 and 3 began with a review of all preceding content.

Lessons 1 and 2 provided two practice exercises. The first exercise, covering all breeds presented through that lesson, required students to select from three choices the breed name that best fit the sentence. The second exercise, covering only the breeds presented in that lesson, required students to generate the breed name that best fit the sentence.

Lesson 3 had no new instructional content. One exercise required students to select, out of all eight breed names taught, the one that best fit the sentence. The second exercise required students to generate the name of each of the breeds as illustrated by a new picture not used in the instruction.

phobia: The instruction was based on concept-learning strategies, which were also used in instruction for Subject-Area Vocabulary. The word phobia was taught as having the following five critical attributes (called "features" in the instruction):

1. It is a fear.
2. It is great.
3. It lasts a very long time. (It may even last for a lifetime.)
4. It is not reasonable.
5. The fear is of one special thing.

In the ensuing instruction, this fifth attribute was used to differentiate each of the eight phobias taught.

Lessons 1 and 2 each taught four words. Each phobia was defined and then used in a sentence, which was illustrated by a picture. Then comment was made about why this word was appropriate for the sentence. The instruction section of each lesson concluded with a brief review of the lesson's content. Lesson 2 began with a review of lesson 1 content.

Lessons 1 and 2 provided 3-4 practice exercises:

1. Reading a sentence and determining whether or not it described a phobia.
2. Reading a sentence and selecting from three choices the appropriate phobia that it described.
3. Writing the missing critical attribute (out of five possible).
4. (lesson 2 only) Generating the correct phobia word to complete a sentence.

Lesson 3 reviewed the critical attributes of a phobia, but had no new instructional content. One exercise required students to write the special fear that a person with each listed phobia would have. The second exercise required students to fill in the appropriate missing words in a story.

Vocabulary from Context materials

For instruction in the three Vocabulary from Context units, the tasks of deriving word meaning from context were broken down into small elements (reflecting the constituent cognitive processes) so that a gradual build-up of learning could be effected. An outline of the instruction in each unit is presented below.

Example:
1. instruction on signal words (e.g., for example, such)
2. practice in identifying signal words
3. instruction on examples without signal words
4. practice in selecting what an example clue tells in general, with example clue identified

5. practice in selecting the meaning of an unknown word with the example clue identified
6. practice in identifying example clues
7. practice in selecting the meaning of an unknown word with the example clue not identified
8. practice in defining an unknown word with the example clue not identified

Groupings:

1. instruction on groupings containing single words, with and without commas
2. practice in identifying groupings containing single words
3. instruction on groupings containing phrases or sentences
4. practice in identifying groupings containing phrases or sentences
5. practice in selecting the meaning of an unknown word with the grouping clue identified
6. practice in selecting the meaning of an unknown word with the grouping clue not identified
7. practice in defining an unknown word with the grouping clue not identified

Comparison:

1. instruction on signal words (e.g., like, as)
2. practice in identifying signal words
3. instruction on locating the two parts of a comparison on the basis of part of speech
4. practice in selecting the two parts of a comparison
5. practice in identifying the two parts of a comparison
6. instruction on context that explains a comparison
7. practice in identifying the context that explains a comparison
8. instruction on determining the meaning of an unknown word by its comparison
9. practice in selecting the meaning of an unknown word with the comparison clue identified
10. practice in selecting the meaning of an unknown word with the comparison clue not identified
11. practice in defining an unknown word with the comparison clue not identified

Each of the Context units was divided into two lessons with the second lesson beginning with review of content from the first lesson. Most of the practice items for Example and all for Groupings were derived from textbooks.

Assessments

Four kinds of assessments were used in the tryout to assess student competence in the four modes of vocabulary use:

1. written comprehension (reading)
2. written production (writing) - Alternative Language and Subject-Area Vocabulary only
3. oral comprehension (listening)
4. oral production (speaking) - Alternative Language and Subject-Area Vocabulary only

The first three assessments were used as both pretests and posttests; the last only as a posttest (because of the need for administration to pairs of students). The pretests were administered to all participating classes; the posttests only to those classes that had received instruction in the unit. With one major exception noted below, the pretests were nearly the same as the posttests. However, a few pretest items were revised when it was noted that their wording might confuse the students.

Written comprehension. These were the most varied tests.

Geography: Students selected the two correct critical attributes out of four choices for each term.

Economics: Out of two or three choices, students selected the word or phrase that described or was described by the term.

look: Out of two choices, students selected the word or phrase critical to the meaning of the synonym. Out of four synonyms, students selected the one that was closest in meaning to the synonym listed.

dog: Out of five choices, students selected the two or three words or phrases that described each dog.

phobia: Students matched the word with its correct definition. Two inapplicable definitions were included.

Vocabulary from Context: A nonsense word replaced a word defined by the sentence context. Students were to choose one of three meanings for the nonsense word. Providing meaningful distractors was very difficult (anything close to the "correct" response would also be a possible response), and students obtained very high scores on the pretests, mostly above 80% and frequently above 90%. Since staff intuitively felt that students were really not that capable of determining meaning from context, a new test was devised and administered, using the same items, but requiring students to write a definition for the nonsense word. This test form more closely approached the requirements of actual reading, where choices are not provided for the meanings of unknown words. This revised test provided the pretest scores reported in this paper and was the only form used for the posttest.

Written production: For the Geography, Economics, and look pretests, the words in the unit were listed and students had to use them to fill in the blanks in sentences. For dog, the words for the unit were listed and students had to write them under pictures of the dogs.* For phobia, definitions were provided and students had to write the word ending in phobia for each one.

On the written production posttests, the answer choices were removed from the first four tests described, thus making them more difficult than the pretests. No changes were made in the phobia test, since the pretest did not provide choices.

*The pictures were the same as those used in the instruction. However, since there were two pictures of each breed, half of the classes received tests with one set of pictures while the other half received the other set. On the oral production test, each class received the set not used for written production.

Oral comprehension: The teacher read sentences containing the words taught in the unit (in the case of Words from Context, a nonsense word was used) and asked a question about the (nonsense) word. Students chose the correct answer out of three choices. The Words from Context test presented problems similar to those described for the Words from Context test in written comprehension. A similar change (to having students define the nonsense words) was rejected because this would require a great amount of time in a whole-class testing situation.

Oral production: This test was used only as a posttest. Working with pairs of students, the teacher alternated between students asking them questions (or, in the case of dog, showing them pictures) for which one of the unit words was the correct response. Eight questions (or pictures) were used for each unit; consequently, each student responded to four items.

PROCEDURES

The tryout was conducted between March and June 1977. The pretests were delivered to the schools for teacher administration prior to the beginning of instruction. (The revised test for Words from Context was administered on the fifth day of instruction in all but the junior high classes, where, because of a late start, it was possible to replace the original form with the revised form.) The order of administration for the three pretests was different from class to class, to counterbalance the possible effect of learning from prior testing.

The pretests were scored by SWRL staff; see Appendix A for pretest scores. On the basis of these scores, but also dependent on SWRL's interests, classes were assigned instruction in the various units. The distribution of units was as follows:

Subject-Area Vocabulary: Geography - all classes in School A; all other fourth-grade classes

Economics - all eighth-grade classes; sixth-grade classes in School B

Alternative Language: dog - all fourth-grade classes

phobia - all other classes

look - all classes, with four classes receiving each of the three different forms, including at least one class at each grade level

Words from Context (all three units): all classes

Instruction was presented in the order given above. After instruction was provided in each of the three major content areas, assessment was administered for that content and generally was concurrent with instruction in the next content area. The order of test administration was the same as in the pretests, with oral production (not pretested) spread out over several days while the other assessments were being administered.

Daily instruction for each class was prescribed in a log for the 20 days of the tryout. The log also included space for teachers to indicate for each assignment the date completed, the time required, and personal comments. While the tryout could be completed in four weeks, teachers were told that they should be flexible and fit the tryout instruction into their schedule. Materials were packaged in envelopes according to the daily schedule prescribed in the log.

Before teachers started instruction, they met with SWRL staff for a brief overview and orientation to the tryout procedures and materials. In order to obtain maximal teacher cooperation, SWRL staff did not take a "hard line" in specifying teacher behavior, recognizing that variations in procedures would provide information about how vocabulary development instruction could operate in schools without SWRL supervision.

During the course of the tryout, each school was visited 5-6 times for observation by SWRL staff. Four SWRL staff members participated in the classroom observations.

After all instruction was completed and all materials returned, student and teacher questionnaires were distributed.

RESULTS AND DISCUSSION

Teacher orientation was conducted in Schools A, B, and C before spring vacation and instruction started after the vacation (except in class A4, where state testing postponed the start for a week). Instruction for the 20-day tryout was completed in these schools in 4-6 weeks. Most classes interrupted instruction for special testing.

Obtaining a junior high school was somewhat difficult, so School D started late. Orientation was provided only for teacher D8a. Both classes began instruction around May 1 and ended about five weeks later. However, special testing interrupted the instruction (for up to two weeks) in both classes; thus to complete the tryout before the end of the school year, both classes were forced to do 2-4 lessons on some days.

All completed lesson sheets and tests were received from all classes, with the exception of seven oral production tests (two from A4/5, one from C6a, three from C8a, and one from D8a). Tryout logs were returned from all teachers in Schools B, C, and D, but none from School A. Teacher and student questionnaires were returned from ten classes; two classes in School A (A4/5 and A6b) did not return them.

The classes

All classes were observed at least once during the tryout; a majority were observed five times. Four SWRL staff members conducted the observations. Five observations with two people each were made at School A; generally, however, at least one teacher was not giving vocabulary instruction at the time of each scheduled observation. Five observations of both classes in School B were made by 1-2 people. Six observations with 1-2 people were made in School C; these were usually of the two classes taught at the same time (C6a and C8b); the limited obervations of the other two classes--taught by the same two teachers--indicated that instruction was about the same. The classes in School D were observed five times, generally by one person each time.

The twelve participating classes showed considerable variety, reflecting the different kinds of classroom conditions expected in full-scale use of instruction. The following comments indicate some of that variety.

A4: Some teacher-directed instruction; students received no feedback because they did not correct their lesson sheets, but put them in envelopes for return to SWRL.

A4/5: Very little teacher interaction with students; although observers viewed the teacher as gruff and a bit unpleasant, test scores indicate that the gains in this class were among the best among the tryout classes; teacher not friendly toward observers. Students did not always correct their answer sheets.

A6a: Tryout procedures seemed to be fairly well followed in this class; little teacher interaction with students except when required by the tryout.

A6b: A more chaotic classroom, with much student-student interaction, but little teacher-student interaction.

B4a and B4b: Much interaction between the two teachers, and so many similarities between teachers. Teachers introduced lessons and paced students through them to ensure that students could complete the work. A separate "correction table" in each room, where students went to use the answer keys. Teachers were enthusiastic about the instruction and concerned that students learn from the tryout.

C6a and C8a (same teacher): Very little teacher interaction with students.

C6b and C8b (same teacher): Complete teacher-directed instruction throughout; teacher claimed that students were unable to work alone (though he and the "a" teacher both also claimed that the better students were in these "b" classes). Teacher instruction lively and engaging, although observers seriously questioned the necessity for it. Students exchanged papers and corrected them as the teacher gave the answers.

D8a: Very little teacher interaction with students; students work well alone.

D8b: Little teacher interaction with students; the other classes taught by this teacher were in home economics; claimed to have slower students, including some who should have been in special education classes.

Schools A and B had standard self-contained classrooms, with the classroom teacher in charge of the students for most of the day. However, a separate "learning center" room was in use at School A. In School C each teacher had her or his sixth-grade class and eighth-grade class for 2-3 hours of the day; they both taught primarily language arts and social science. School D was a standard junior high school, with vocabulary instruction included within the 50-minute English period.

The junior high teachers in School D said that it was more difficult to fit the instruction into their schedule. They indicated that independent student work was hard to arrange unless it required the full class period, because they had nothing for students to do after they had finished and were waiting for others to complete the lesson. The elementary and middle school teachers, on the other hand, were able to have students move on to other assignments in the room. While it is clear that vocabulary instruction can operate in a variety of elementary and middle school classrooms, determining the appropriate ways of integrating it into the junior high school will require additional tryouts.

Time requirements

The tryout proposal indicated that vocabulary instruction would take 15-20 minutes a day. In general, this was an underestimation of

time requirements: the time for most lessons was 15-30 minutes (based on reports in logs returned by teachers in Schools B, C, and D). The two fourth-grade classes reporting often spent more than 30 minutes per lesson and occasionally up to an hour. (The teacher of the other fourth-grade class, A4, complained of the time required, but did not report any actual times.) On the other hand, the eighth-grade classes frequently required only 10-15 minutes per lesson. However, the amount of teacher direction affected the time required: Classes C6b and C8b, where the teacher led the instruction, took considerably more time for vocabulary instruction than did classes C6a and C8a, where the students worked independently.

In general, time requirements also decreased as the tryout continued, suggesting that after students learn new procedures they can study more quickly. However, the first lesson in a new area tended to require more time than the subsequent lessons in the same area.

From this evidence it appears that the lessons as designed for the tryout are generally appropriate for 15-20 minutes study in grades 6-8, although some may need to be redesigned to lighten the learning load when new content is introduced. (In order to obtain more information, the tryout moved rather quickly from Subject-Area Vocabulary through Alternative Language to Vocabulary from Context in just 20 days. In a complete operational program over a full school year, the variety would be less rapid; this should also decrease the time requirements.)

It would appear, however, that instruction written for the lower grade levels should be rearranged into smaller pieces so it will not overload students or require excessive time.

Using materials

After initial exposure, students had little difficulty completing lesson sheets. However, two major problems were noted. First, students sometimes skipped over the instructional sections and began the practice immediately. In part this may have occurred because (for tryout purposes) units were assigned to whole classes whether or not all students needed the instruction; thus some students probably did not bother with the instruction. In a more complete program, efforts would be made to assign instruction to students based on their individual vocabulary needs. Another problem in the tryout perhaps contributing to this procedure (as well as affecting other aspects of the tryout) was that teachers--and thus students--often called the lesson sheets "tests." Consequently, students may have thought that anwering questions (i.e., doing the practice exercises) was the crucial task, not studying the material. Moreover, the older students were especially aware that their grades did not depend on their work in vocabulary and therefore were, unfortunately, not motivated to do the work; this problem would undoubtedly be alleviated with regular use of a complete program.

A second problem with the materials was that the students sometimes found them boring (see Appendix B). One reason for this may have been the usual organization of the lessons: first instruction, then heavy practice. A simple way perhaps to eliminate boredom--and get students to pay more attention to the instruction--would be to alternate instruction with practice. In addition, learning might be increased if practice came more immediately after instruction. A second reason for boredom may have been the rather unexciting appearance of the lesson sheets, especially those for

Vocabulary from Context, which contained only text with very little visual interest. A better physical appearance should not only increase interest (and thus motivation and, hopefully, learning), but should also increase the marketing potential of a vocabulary program. A third reason for boredom may have been that, for upper grade students, some of the materials were too easy. This problem will be alleviated by the use of graded materials for individual placement.

Two less serious problems were noted on occasion. First, in multiple-choice items a few students occasionally chose their answers from the responses above the stem rather than from those below. This may have been caused by carelessness, but better formatting might prevent its future occurrence. Second, especially in constructed-response formats, but even in multiple-choice formats, students all too commonly misspelled words. Misspellings were also noted on the assessments. When hard-to-spell words are introduced, the instruction should contain some reference to spelling. One method of accomplishing this would be to insert a "spelling tips" section immediately before constructed-response practice; such a section would also be a helpful review of the words being studied.

In addition to these general problems, some specific problems appeared with individual lessons. While not detailed in this report, minor changes can alleviate these difficulties. However, such specific problems once again validate the importance of the prepare-tryout-revise cycle in sound product development.

While problems were found in the materials, these problems all seem amenable to revisions that can eliminate them. Moreover, students at all

levels seemed generally capable of working independently with the lesson formats used in the tryout.

However, students did have some problems with the use of answer keys in those classes where the answer keys were used. Some students, primarily in the lower grades, had difficulty finding their places on the answer keys; this problem might be eliminated by better format design. Three other problems were noted that are more serious:

1. Sometimes students did not indicate an incorrect answer as wrong (either by correcting it or marking it).
2. Less frequently, students marked correct answers as wrong.
3. Students frequently had difficulty in determining the appropriateness of their answers when there were a number of different yet correct responses; they frequently marked wrong an answer that SWRL staff judged to be correct.

The first two problems may be alleviated somewhat by better formatting. Their severity may also be decreased by better teacher supervision; the importance of accurate corrections should be noted clearly in any teacher's guide, and perhaps even in student materials. The third problem is more difficult to solve. One possible solution would entail providing more possible responses in the answer key, but it is unlikely that all possible appropriate responses would or could be included; moreover, this might overload the answer key. A better procedure might be the inclusion of some instruction and practice on the notion of variable correct responses before students are asked to judge their own answers. The third possibility, having teachers make corrections, is too time-consuming to require for practice exercises.

Although problems remain, the self-correction process generally worked well in the tryout and is still believed to be a useful and important part of learning through immediate feedback.

Using audio tapes

Audio tapes for the look unit were assigned to four classes: A4/5, A6b, C4a, and D8a. Since the tapes would be used for only four lessons, it was felt desirable to use them in classes where students were already familiar with the mechanical procedures. School A was chosen for half of the tape use because the teachers had said at the orientation that the learning center room was equipped with tape recorders which the students frequently used. School B teachers said that they often used tapes, but, to provide variety, only one class was assigned tapes. Class D8a was the only eighth-grade class that commonly used tapes.

Because of scheduling difficulties, no observations were made of tape use in classes A4/5 and D8a. Unfortunately no questionnaires or logs were returned from the former class, so no information about tape use is available for one-fourth of the tape classes. Questionnaires and logs were not returned from A6b; however, one taped lesson was observed. The teacher played the tape to the whole class. While the students seemed to enjoy the tape, the procedure was antithetical to one of the main reasons for using audio tapes--to provide greater individualization of instruction.

Observations and comments from class B4a indicated that both teacher and students liked the tapes, although they felt that the narration on the tapes was too slow. This was considered an even greater problem in

class C8a, where the teacher reported that the students preferred to (and did) work on their own.

Posttest scores do not indicate any clear superiority for tapes or for teacher-directed instruction (also used by four classes in the look unit). While the posttest scores (see Appendix A) are somewhat higher in the tape and teacher-directed classes than in the independent student work classes, the tryout conditions were not sufficiently controlled to judge the significance of such scores. However, gains do not appear to be noticeably great enough to justify the greater cost and time needed to provide taped or teacher-directed instruction.

Specific comments on tryout instruction

Instruction in Subject-Area Vocabulary (geography and economics terms) was successful. Since it was first in the tryout, students had some slight difficulty in getting started, but this can be expected with any new program. Teachers felt that such instruction was very important. The concept-learning approach to subject-area vocabulary worked well, although one problem was noted: the theory-motivated practice of putting the most difficult concepts last in a unit causes them to have the least practice; however, these difficult concepts surely need the most practice. A possible solution would be a sequencing that begins with easier concepts (to get students off to a good start), then moves to harder concepts (to get enough practice), and concludes with easier concepts (which should need less practice).

Students and teachers enjoyed the Alternative Language lessons. The first lessons of both the dog and phobia units were perhaps too heavy

but this should be easily remedied. Since even the teachers mispronounced some of the phobia words, special attention should be placed on the pronunciation of uncommon words. The look lessons were used in all classes, although many of the older students needed only minimal instruction. (See comments on look audio tapes above.) Some distinctions among the synonyms were difficult for the students and must be more clearly distinguished in the instruction. Some pictures and/or practice items may have been too childish for the older students.

The three units on Vocabulary from Context were difficult. Some of the difficulty was caused by the necessity to read a great deal of straight prose. (Although every attempt was made to keep vocabulary and syntax simple throughout the lessons, teachers--even in the eighth grade--complained that some students found the materials difficult to read.) The order of the units was not conducive to efficient instruction: the easiest (Groupings) was second, while the hardest (Example) was first. In addition, students sometimes did not clearly understand the tasks required of them; rewriting of directions and of item forms should ameliorate this problem. In addition, the Context lessons tended to be too long, especially for the lower grades; reorganization into more lessons can resolve this problem. Finally, so much new material was included in the Context lessons that it slowed students down and confused them. One possible solution might be the inclusion of a general introductory lesson on the use of context clues before instruction on the context-using skills begins. Part of the confusing newness seemed to be the use of unfamiliar words.

Since the object of using context is to determine the meaning of unknown words, using unfamiliar words in the instruction is obviously important. However, students frequently stopped to figure out new words, which was not required in the instruction. A possible solution to this problem would be to use blanks and/or nonsense syllables in the place of unknown words when the emphasis is only on the skill and not on the word meaning. The use of an introductory lesson might also be helpful, especially if students could be encouraged to skip over unknown words rather than try to pronounce them.

Despite these specific difficulties with the lessons used in the tryout, the materials seemed to be successful. All of the problems are amenable to solution so that better instruction can be provided. Here again, the importance of the prepare-tryout-revise cycle is confirmed.

Assessment results

Fourteen different posttests were administered in the course of the tryout (see pages 10-12 for details). Pretest and posttest scores as well as gains are presented in Appendix A. In general the results are impressive. (However, two observed behaviors should be noted: (1) In some classes, there was considerable group effort involved in completing the tests; (2) in some classes, the tests were corrected in class.) While posttest scores are generally high, they tend to be somewhat higher in the upper grades than in the lower grades (with the exception of class C6a; the lower scores in this class may reflect some lack of concern when taking an ungraded test). The gains on the written production assessments are

more impressive than the numbers reveal, since the pretests for all units except phobia included the answer choices, while the posttests did not; thus the posttests were considerably more difficult than the pretests.

The one area where posttest scores are not consistently good is for Vocabulary from Context; some losses (rather than gains) are even found. Several possible explanations exist for these low scores:

1. As noted above, the instruction was difficult; improved instruction should aid learning.
2. The instruction and testing came at the end of the tryout and many students seem to have been particularly tired of so much testing.
3. In some classes, especially those in School D, the instruction and practice came very close to the end of the school year, and students may have been unwilling to work hard with vacation so close. Moreover, most of the Context lessons in School D were completed in 2-3 days rather than in the scheduled six days; such a tight schedule would not be expected to provide maximal learning opportunities.
4. The construction of the oral comprehension test produced unnaturally high pretest scores; it is statistically difficult to obtain gains when scores are already above 90%.
5. The written comprehension test required the construction of definitions for nonsense words, based on the information provided in the context. The test included 15 such items, while instruction had provided practice on only 12 similar items, and students had experienced some difficulty with them. Increased practice on the desired terminal behavior could be expected to produce better results.

One reason for giving so many different tests was to obtain information about vocabulary learning in all four modes: reading, writing, listening, speaking. Because of the variety of test formats, it is not possible to make definitive statements about the relations among these modes. The tendency on the posttests was for written comprehension (reading) scores to be somewhat lower than the other test scores, for oral comprehension scores (listening) scores to be somewhat higher, for written production (writing) scores to be somewhat average, and for oral production (speaking) scores to be inconsistently related to the others (i.e., to be spread from low to average to high). Since these tendencies are only general, they cannot be used in making predictions. In a complete program, using only one test rather than four would be desirable. A decision on a single appropriate testing mode cannot be made on the basis of the tryout results.

Teacher reactions

Teacher reactions were obtained in three ways: through the observations, through the logs, and through the questionnaires. The first two sources provided variable amounts of information; the results are generally included in the previous discussion. This section will focus on reactions noted on the questionnaires (received from all teachers except A4/5 and A6b).

For each unit, teachers were asked to rate, on a five-point scale, the extent to which they agreed with nine statements. The teachers overwhelmingly felt that the lessons were easy for them to use; they were nearly as positive in believing that the lessons were also easy for students to use (with disagreement primarily in the Vocabulary from Context units). While they tended to feel that the lessons needed teacher assistance, this result

is somewhat biased by the difficulty of the Vocabulary from Context units and by the responses of specific teachers (particularly by the teachers at lower grades and by the teacher of classes C6b and C8b, whose teaching style did not permit individual student work).

Teachers tended somewhat to feel that the lessons were appropriate for the students' needs; disagreement came primarily from class A4 (too difficult) and from classes C8a and D8a (too low a level for eighth grade). When asked about how well their students understood the lessons, a majority felt they were relatively well understood, with the disagreement arising primarily from two sources: teachers at the lower grades; Vocabulary from Context units. While a majority felt that the lessons were not interesting or enjoyable for students, this was primarily noted about the Vocabulary from Context units, which were the last units in the tryout and which comprised half of the units contributing to the questionnaire data.

Teachers generally did not feel that the lessons provided for individual differences among students, but this is not surprising since the tryout was not planned for whole-class participation.

Teachers were also asked specific questions. Seven teachers answered affirmatively to the question, "Did you receive sufficient information before the tryout began? If not, what should have been provided?" The three negative responses were explained as follows:

> A4: "We were told 20 minutes a day and we would get free materials." [All materials were provided free; the teacher apparently expected to get some to keep. Additional copies were offered, but no response was made to the offer.]

A6a: "The length of each program [lesson?]. A more accurate feeling for the amount of testing."

D8b: "I did not realize there would be 19 lessons."

The following responses were given to the question, "What did you particularly like about the vocabulary lessons?":

A4: "The repetition and reteaching in reviewing in [Subject-Area Vocabulary and Alternative Language]."

A6a: "Synonyms for look."

B4a: "The ideas were very helpful in formulating some new ideas [sic]. I feel we are in great need of lessons like these--I do wish the context clues sections could be made easier to work with because it is an area which is very difficult to teach and we are desperately in need of something to use."

B4b: "Good subject matter used. Good independent work."

C6a: "Economics unit really 'got through' for grade 6. Learned some important concepts. Contextual approach good."

C6b: "They were short."

C8b: "They were short and everything was clarified."

D8a: "The programmed nature of the material provided for differences in students' speeds."

D8b: "The programmed learning structure."

On the other hand, the teachers had these responses to the question, "What did you particularly dislike about the vocabulary lessons?":

A4: "Too hard."

A6a: "Context clues--much too wordy--Explanations were not clear."

B4b: "Too much in a lesson."

C6a: "No individualization based on level of difficulty."

C8a: "Too easy for grade 8. Tapes were not approriate or helpful for grade 8."

C8b: "Eighth graders were bored. I tried to spice [sic] my lessons."

D8a: "I felt that an excessive amount of time was spent on vocabulary which an 8th grader is not going to find particularly useful at the moment, e.g., the phobia section, the lessons on [economics]. The students still need to learn to, too, and two; there, their, they're, etc."

D8b: "I thought that some of the lessons were unnecessary. I thought that some other vocabulary could have been taught."

All of these teacher suggestions either can be easily incorporated into revisions or will be remedied by providing a complete program rather than specially selected topics.

Teachers were next asked, "How could the vocabulary instruction be more effective?" As could be expected, the fourth-grade teachers wanted shorter lessons. While teacher A4 (above) had said she liked the repetition, teacher A6a asked for "less repetitiveness." Some of the other upper-grade teachers felt that the instruction needed to be adjusted to the levels of their students. Teacher D8a repeated her desire to have instruction on "homonyms." Teacher D8b noted that the lessons should be either longer or shorter in order to fit into her junior high school schedule.

Only four of the ten teachers responding indicated that they would like to "use these vocabulary materials again," although teacher A4 qualified her negative response by saying, "Not unless reworked for 4th grade." These same four teachers also said that they would "like to use more such vocabulary materials," with teacher A4 again giving a qualified response as above. One other teacher (C6b) gave a mixed response: "No content. But 'context clues' would be of value."

When asked, "What specific content would you like to see taught?" the following responses were given:

B4a: "Science vocabulary, math vocabulary, more social science vocabulary and adjectives to improve our [sic] creative writing."

B4b: "More science, social studies, language and reading." [The latter two presumably refer to technical terminology for language and reading.]

C6a: "Geography, government, history, and grammar." [Again "grammar" presumably refers to technical terminology.]

D8b: "Comprehension and mechanics of English use (grammar)." [It is not clear what is meant by "comprehension"; It is even less clear what "mechanics" have to do with instruction in vocabulary.]

As can be noted from several of these teachers' reactions, the comments are frequently difficult to interpret. However, it does seem clear that teachers found a lot to like about the vocabulary lessons tried out in their classes, but that additional work is needed to alleviate some of the problems they observed. While the teachers may sometimes be obscure in their reactions, they must be listened to carefully, since it is teachers who will determine the purchase and use of any vocabulary program that may be developed.

Student reactions

Student questionnaires were returned from ten classes (all except A4/5 and A6b), with over 260 students responding. Two questions asked whether students would like to have more such vocabulary lessons; 62-63% responded that they would not like more. This somewhat overwhelming negative response is in part tempered by the considerably more positive

responses given to other questions. Also, students may have interpreted the question to ask whether they wanted more vocabulary lessons before the end of the school year. In addition, students completed the questionnaires after the more difficult and generally less enjoyable Context units, so they may have been predisposed to respond negatively.

A majority (63%) of the students thought that the lessons were "just about right," with the remainder tending to view them as "too easy" (26%) rather than "too hard" (11%). They also thought the length of the lessons was "just about right" (63%); of the remaining students, most thought them "too long" (31%) rather than "too short" (6%). They even thought that the tests were "about right" (60%), with more students considering them easy (26%) than hard (14%).

Despite the fact that the students indicated that they did not want more vocabulary lessons, only 31% considered them "worse than most other things in school." The same percentage considered them "better than most other things in school." A few more students (38%) considered them "about the same as most other things in school." One interpretation might be that many students are not generally excited about much of what goes on in school and that if 37-38% of the students want more vocabulary instruction, this is a positive response.

While they were not completely happy with the lessons, 50% of the students felt that they learned "a lot," with another 38% feeling that they learned "some, but not a lot." Only 12% felt that they learned "very little." Students' overall perceptions of their learning seem to be fairly close to the gains registered in the assessments.

A few questions attempted to assess students' reactions to individual units. They generally considered the units on <u>phobia</u> and <u>dog</u> to be the

easiest and most enjoyable, with the best pictures. They cited a variety of units as being hard and unenjoyable; the only consistent pattern was that fourth graders liked the context units less than the other units. Interestingly, 21% of the students said that they didn't like the pictures. Since this response was more common at the upper grades, it suggests that some attempt should be made to use more sophisticated illustrations for older students.

Questionnaires were received from only two of the four classes using audio tapes (B4a and C8a). The fourth graders tended to like the tapes (69% positive), while the eighth graders tended not to like them (89%). However, a majority of both classes indicated that they preferred the non-tape lessons (fourth: 58%; eighth: 92%). These reactions seem to confirm the teachers' comments.

In one area, teachers' responses differed considerably from students' responses. While the teachers generally felt that the lessons "required teacher assistance," only 22% of the students felt that they received "a lot of help from [their] teacher[s]." This difference in perception is probably understandable. The materials were originally developed for independent student use, so teachers would feel that any assistance given was notable; in addition, observations suggested that teachers often worked with students more than necessary. Students, on the other hand, expect teachers to provide instruction, so they would not have interpreted any teacher assistance as excessive.

Students were invited to write comments on the questionnaire; their unedited comments appear in Appendix B. These comments are a mixture of positive and negative, often from the same student. The negative comments in two classes are suspect. In A6a, many students referred to being "guinea pigs" for SWRL. The repeated use of this phrase (and of the word "boring") suggests that some class discussion took place before the questionnaire was administered. Class C6a was also highly negative; however, this class did relatively poorly on the tests and frequently seemed not to care, giving meaningless or intentionally ridiculous responses.

The most common negative comments were that the lessons (or "tests," which may also mean lessons) were boring or repetitious. Much of the repetition (although not the boredom) was purposeful--to ensure mastery learning. More variety within and between lessons might help this. In addition, all of these comments were written by sixth and eighth graders; since the materials were written to be used also by fourth graders, this complaint may have some validity. When a full program is developed, it should be easier to write the materials in ways more appropriate for the maturity of the students.

While the negative comments can be most useful in improving vocabulary instruction, it should not be forgotten that many of the students wrote in glowing praise of their experience. They said that the lessons were "good," "interesting," and "fun." They "learned a lot" and wanted more. Such anonymous testimonials suggest that, especially with more development effort, instruction can be provided for students

to learn vocabulary concepts and skills and enjoy the learning process as well.

(While not a concern of the tryout, the comments in Appendix B clearly indicate the great need for improved spelling and composition instruction.)

CONCLUSIONS

Two major conclusions can be drawn from the tryout of vocabulary development exercises: (1) students in grades 4-8* have considerable deficits in vocabulary skills and knowledge; (2) these deficits can be remedied through instruction of the sort used in the tryout. However, additional work is needed to provide instruction that best teaches vocabulary skills and knowledge in a sound, but interesting, fashion and is appropriate for the grade level for which it is intended.

*With revisions to shorten and simplify lessons, the elementary content may be appropriate for third grade. Conversely, advanced content should also be suitable for ninth grade. (One ninth-grade class--described as low achieving--took the pretests, but did not otherwise participate in the tryout; their pretest scores were no better than those for the participating eighth grades.)

References

Humes, A. A design for a vocabulary development program. Technical Note No. TN 3-76-09, SWRL Educational Research and Development, Los Alamitos, California (a).

Humes, A. Requirements for vocabulary development instruction. Technical Note No. TN 3-76-08, SWRL Educational Research and Development, Los Alamitos, California (b).

APPENDIX A
ASSESSMENT SCORES

Table 1: Subject-Area Vocabulary: Geography
Mean Percent Correct

School	Grade	Class	Written Comprehension			Written Production			Oral Comprehension			Oral Production
			Pre-test	Post-test	Gain	Pre-test	Post-test	Gain	Pre-test	Post-test	Gain	
A	4		59	87	28	36	82	46	58	80	22	95
	4/5		64	86	22	46	84	38	70	78	8	71
	6	a	66	89	23	53	91	38	71	86	15	80
	6	b	68	90	22	44	88	44	70	84	14	92
B	4	a	73	89	16	34	80	46	69	82	13	83
	4	b	71	91	20	37	80	43	68	86	18	83
C	6	a	74			48			73			
	6	b	77			44			78			
	8	a	95			70			78			
	8	b	82			78			78			
D	8	a	74			58			82			
	8	b	74			60			79			

Table 2: Subject-Area Vocabulary: Economics
Mean Percent Correct

School	Grade	Class	Written Comprehension			Written Production			Oral Comprehension			Oral Production
			Pre-test	Post-test	Gain	Pre-test	Post-test	Gain	Pre-test	Post-test	Gain	
A	4		45			35			53			
	4/5		44			65			58			
	6	a	63			68			64			
	6	b	52			63			60			
B	4	a	49			53			62			
	4	b	50			41			61			
C	6	a	54	81	27	67	78	11	69	84	15	*
	6	b	59	88	29	56	91	35	64	94	30	86
	8	a	60	88	28	82	91	9	72	93	21	*
	8	b	66	94	28	83	81	-2	76	95	19	91
D	8	a	74	96	22	83	99	16	72	96	24	97
	8	b	70	86	16	75	88	13	76	91	15	68

*Not returned.

Table 3: Alternative Language: look
Mean Percent Correct

School	Grade	Class	Written Comprehension			Written Production			Oral Comprehension			Oral Production
			Pre-test	Post-test	Gain	Pre-test	Post-test	Gain	Pre-test	Post-test	Gain	
A	4		61	83	22	46	68 (70)	22	52	76	24	74
	4/5	AT	66	90	24	49	85 (87)	36	67	89	22	*
	6	TI a	89	96	7	72	89 (92)	17	73	90	17	78
	6	AT b	84	93	9	63	80 (82)	17	74	92	18	59
B	4	AT a	78	87	9	54	74 (75)	20	64	81	17	68
	4	TI b	73	92	19	59	87 (90)	28	62	90	28	74
C	6	a	82	86	4	62	65 (68)	3	75	83	8	41
	6	TI b	77	92	15	68	86 (89)	18	80	91	11	97
	8	AT a	84	94	10	82	90 (92)	8	81	91	10	*
	8	b	87	95	8	85	90 (91)	5	77	94	17	89
D	8	a	90	90	0	79	80 (83)	1	82	92	10	*
	8	TI b	88	92	4	76	78 (81)	2	79	92	13	81

TI: teacher-directed instruction
AT: audio tapes
*Not returned.
Note: Written Production posttest scores in parentheses are with duplicate answer given full credit.

Table 4: Alternative Language: dog
Mean Percent Correct

School	Grade	Class	Written Comprehension			Written Production			Oral Comprehension			Oral Production
			Pre-test	Post-test	Gain	Pre-test	Post-test	Gain	Pre-test	Post-test	Gain	
A	4		63	83	20	74	87	13	75	90	15	80
	4/5		63			86			90			
	6	a	86			95			86			
	6	b	75			91			85			
B	4	a	72	80	8	71	82	11	74	91	17	75
	4	b	68	81	13	63	96	33	75	93	18	77
C	6	a	80			84			85			
	6	b	80			86			93			
	8	a	84			92			96			
	8	b	84			95			88			
D	8	a	88			91			95			
	8	b	88			90			91			

Table 5: Alternative Language: phobia
Mean Percent Correct

School	Grade	Class	Written Comprehension			Written Production			Oral Comprehension			Oral Production
			Pre-test	Post-test	Gain	Pre-test	Post-test	Gain	Pre-test	Post-test	Gain	
A	4		20			5			47			
	4/5		18	88	70	12	89	77	57	90	33	*
	6	a	29	79	50	16	79	63	52	90	38	36
	6	b	22	66	44	25	78	53	63	90	27	44
B	4	a	21			3			51			
	4	b	11			3			47			
C	6	a	17	65	48	13	56	43	58	87	29	48
	6	b	17	73	56	15	73	58	56	95	39	78
	8	a	24	77	53	27	83	56	57	93	36	*
	8	b	36	80	44	24	85	61	66	95	29	87
D	8	a	44	78	34	11	71	60	71	92	21	48
	8	b	37	81	44	18	68	50	57	95	38	56

*Not returned.

Table 6: Vocabulary from Context: Example
Mean Percent Correct

School	Grade	Class	Written Comprehension			Oral Comprehension		
			Pre-test	Post-test	Gain	Pre-test	Post-test	Gain
A	4		15	29	14	75	84	9
	4/5		19	47	28	85	88	3
	6	a	42	56	14	96	92	-4
	6	b	41	52	11	78	86	8
B	4	a	27	28	1	79	93	14
	4	b	27	42	15	74	87	13
C	6	a	44	46	2	90	92	2
	6	b	42	50	8	96	100	4
	8	a	51	60	9	96	95	-1
	8	b	59	70	11	95	99	4
D	8	a	38	50	12	96	97	1
	8	b	40	36	-4	80	88	8

Table 7: Vocabulary from Context: Groupings
Mean Percent Correct

School	Grade	Class	Written Comprehension			Oral Comprehension		
			Pre-test	Post-test	Gain	Pre-test	Post-test	Gain
A	4		31	47	16	68	72	4
	4/5		38	58	20	71	84	13
	6	a	58	64	6	94	90	-4
	6	b	55	61	6	77	82	5
B	4	a	42	65	23	64	94	30
	4	b	35	60	25	69	90	21
C	6	a	58	59	1	80	82	2
	6	b	60	70	10	87	95	8
	8	a	66	76	10	83	94	11
	8	b	67	80	13	90	96	6
D	8	a	50	73	23	81	93	12
	8	b	58	68	10	59	88	29

Table 8: Vocabulary from Context: Comparison
Mean Percent Correct

School	Grade	Class	Written Comprehension			Oral Comprehension		
			Pre-test	Post-test	Gain	Pre-test	Post-test	Gain
A	4		40	52	12	83	84	1
	4/5		44	66	22	79	81	2
	6	a	62	65	3	97	85	-12
	6	b	62	61	-1	81	90	9
B	4	a	57	61	4	76	94	18
	4	b	53	69	16	79	88	9
C	6	a	60	62	2	86	90	4
	6	b	73	74	1	97	98	1
	8	a	66	76	10	94	98	4
	8	b	76	84	8	96	96	0
D	8	a	73	73	0	94	96	2
	8	b	62	55	-7	87	89	2

APPENDIX B

UNEDITED STUDENT COMMENTS

At the end of the student questionnaire, the following statement appeared:

> If there is anything else you would like to tell us, write it here. (If there is not enough room, you can write on the other side.)

Over half the students in the ten classes from which questionnaires were returned wrote comments. These comments are printed below with only very minor editing in a few places.

A4

Thank you for sending the SWRL because it was fun please send some dogs papers Thank you very much by now.

I don't like SWRL.

It was fun.

The tests were very nice but very hard even that I'm nine.

A6a

I think that these tests are boring. I liked the phobies were fun. I hated everything elese. We could have done just fine without them. They took a lot of time to do.

I think you should find something else. I like the phobias the best. They are boring. I would rather do math than do those dumb swirls. I'm just telling the truth.

I didn't like the geography because I thought it was very boring.

The test's were to easy and boring.

I wouldn't like to have these test again. You find some different test that are fun to do. I'll do it. I don't like them.

some of the phobia were to hard and all the test enterfers with are fun.

I don't ever want to take the Swrl test again.

To Many test and I don't want to be bother by them any more.

I don't like the swrl and I don't want to do them any more.

It was boering

No because we didn't like being guineapigs. I like nuts that's why I like you people at squirrll and I hope We don't do them again! And they took up time.

We didn't like being a guinea pig

We didn't like being Guine Pigs. The tests wer very boring

These tests were really Boring! You know that!

I not like being a guineapig. And I like nuts thats why I Like you people From (Swrl) try tested people in other States like ALASKA.

I don't want to see another squirrelle in my life.

No more test. I do not want to see a nother test for the rest of the year.

I think they were to easy and shoud of gave them to fourth grade.

Dear Swrl,
I don't like this swrl stough. I knew practicly everything before you people gave us this dumb test. The whole thing was confusing and stupid.
Yours truly,
Not Saying

P.S. Dont write back

I would not like to have the swrl again. They were ok.

I don't like this SWRL one bit. It's boring and it wastes too much time. And furthermore, I don't like bieng treated liked a guinea pig. And I'm sure the whole 6th grade agrees with me fully. If you bring anymore SWRL tests, I'll get really steaming mad.

Swrl is confusing and I didn't learn anything from the lessons or the tests I learned some things but I forgot them all. Signed, Ananonamous
P.S. You shouldn't make other people suffer as we did.

I think that the SWRl was confusing. But I will say I did learn some off of the geography. I did not like the phobias at all. Bye.

The swrl about the geography were ok. But the other's really weren't so good. They got boaring and it got so When are teacher, Miss _____ said "Swrl time every one would say oh! and if there was something to do like go to band, when I would get back there would be a Swrl paper on my desk

and it didn't make me feel to good. And every body I think in my class didn't like the idea of being a Gunie pig on these test. The first few test were fun but they keep coming and coming and coming intell we were totally sick of it. I think are nex't six grade should not have to do this test because it is boaring and not understanding. It was a drag I didn't like it at all and I think the class dosen't either

B4a

I liked the dogs, because I like animals. I would like to learn about cats to. Cat are my favorite animals. I like SWRL.

Thanks for sending the lessons. they were very fun and easy.

no no nothing else not a thing good-by.

I didn't like this very much it was dumb and easy. Thank you.

Well the reson I said dog alot is because I studyed about dog in the 3rd grade alot and I like dogs alot. I liked being a part of your lessons & tests thank

Please! do not give us any more test or work sheets again! I please to you. do not do that agian!
But give us the phobeas*

make taps go-faster and like to do the lessons i wish I could do it agan in fifth.

the tapes were a little to slow. but I relly liked it. and I liked the phobeas.

well if we do have more tests I wish they would have more to do with dogs.

Some of th lesson were to hard and some were just right. I did not like the context example, context grouping, and context comparison. The other were just right.

I liked Dogs the best. some of the them wor hard. but it was ok.

It was easy and pretty crazy and wierd.

the test were just right.

I'd be glad to join you again. I joy this.

The tapes were to slow. It was boring. But I liked experimeting for you.

*In response to teacher requests, classes B4a and B4b were given the phobia unit for post-tryout use.

B4b

I like most of the whole lesson and tests. but I liked the best were the dogs I bet I can tell you most every dog we stuid about Saint Benad D. pinchier and some more.

Good Bye --! I'll be in j.h. high by the time you'v made it.

The features of trees were easy to learn but the other things wher hard.
Good Luck

I like the georgaphy lesson because I learned alot about the Earth.

I hope all class rooms could do this because it isen't fare and it is easy so that they can get a grade on it.

I lik it a little.

The Dog realy interesting to me. I like the Dog test. I learned a lot about the differents of dogs.

It is hard at times. It is easy at times. It is just about right sometimes.

I though that the dogs were fun and I learned alot from them and would like to have more dog.

I think that some of the SWRL was easy and some was hard on number 7 [9?] the teacher helped a little but not alot.

Not much but I did like everything you guys sent us because then we wouldn't have to do any Science or any of that suff you know what I mean don't you. Well any way they were all really good some were easy and some were hard.
The End

Some lessons were easy, some were about right. and some were hard but I liked most of them espellialy dogs. Horse would be nice to do. Lots of other animals would be nice also. Well, Good-by SWRL! [A happy face drawn here]

Could you have something about indians like blackfoot

I hate the squarlls.

C6a

Out of all of these I like phobias best and seemed to have learned more than any of the others.

Please tell us each time to read over them about twice.

It got sort of boring do ng it everyday. It got was very tiresome. But I did learn, but would r. her have learned from a book.

I like it.

I thing it was dumb and stupied and I hope I never see is agin IT WAS STUPIED Thank you.

It stinks. I hate it. IT WAS STUPID.

I didn't like them,

It was alright at first, but it got sick after awhile. It would be alright once a week, but Not every Day. thank you,

Its kind of fun at the beginning but then it gets boring and sick.

I think that SWRL Stinks. I hate it so much that I was going to croak!

I liked the SWRL but not all categories. I think the Phobia was just about the best.

I would like to study phobias because they are ver interesting.

It was very boring. I would of rather done other work.

C6b

I thought it was realy fun doing them. I wish we could to it agin. I think if you improved it, it could be a good leson like give it a test at the beinning of the year and then at the end and see how much they learned. Than if thay learn alot give it agine next year.

I think that you should teach somethings more interesting.

I thought it was good and I helps you lurn a lot it is a big help. and I wish we had more papers like that.

I think it was boring and I did not like it at all!

It think it was a waste of time and I think it is JUNK

I like it was fun.

I like the things that you come up with and I thank you.

I liked the phobia pictures. Keep them.

I learned a lot about phobias.

A more pictures
B study more things
C let us try the tapes
D I think that the Swr lesson were fun.
E Probably a lot of people liked it

F We should have more Swrls.
G It was fun and I hope I have it in the 7th grade.
H I learned a lot.
I I thank you
P.S. Swrl is terrific

I would like to have vocabulary lesson every week because I like to do the lessons and I'v learned more.

I think it was fun doing this but it got a little boreing after awill I think you should put some more excideing things into it becids that it was alright. I think I leard something.

I liked it, it was fund and I hope that we can have more expetuly about look.

Yes, I like swirl, but it was hard when you had to put the words in. I got alot of help and it was fun. I wish we could still have Swirl.

I learned alot especiely about the Phobias. It liked it. I think you should keep it going.

It helped me a lot but it was a little bit easy. You should make them harder.

I think these test should be sent to all or most schools with normal or even "slow" kids it really help you to understand what is going to happen whith your money if you study "economics" and if someone says I have claustrophoiba you'll know and understand what this person is afraid of and maybe you can help them and cure them with their fear. I think its really going to help kids all over the world & even If you sent it to 3rd or 2nd graders there would be <u>much</u> more understanding with the littler people. I really enjoyed Swirl and I think its great! And I learned alot!

The phobia pictures were just great pictures to match the words.

I think it was good to have them. It helped me it was fund doing it not like some lesson boring "I think It was Interesting"

if there was a choice I would pick this instead of having regular English and if it became a every day thing I think I would enjoy school a little more.

Don't try it again "PLEASE." It's very, very, very broing. Its like taking a bitter pill and I mean Bitter!

I think they were very interesting test and I learned alot.

I think that it was fun and interesting and I hope that you could keep the program going for more years. Our teacher helped alot exaplaining the words and what they meant but he did not hlep us with the answers. I think that was good becase then it made us listen so we would get the anwers right.

You shoud make the storys more humorous. Personally I thought it was fun instead of long text books. You should have SWRL for Math, History, ect. It helped me alot in my vocabulary and to undestand what I read. Thank you for sendin it.

You should have a couple more things to do. It is a great help to I learned a lot from it. You should continue on with it.

I was greatly impresssed in your way of teaching and I want more lessons in the worst way! Thank you!

C8a

The tapes were realy bad. Nobody wants to listen to someone read the paper to us. The words were hard and presented badly.

On the tapes - the guy talks too much and gives you to much time.

I thought that some things were stupid and easy, but other things were hard. Over all, I think it was a waste of time.

Too easy for our grade level. about 3rd grade level

I don't think the material was on our grade level.

People could learn alot from this but it's to easy!

The tests' were too easy for 8th graders more like 5th & sth graders.

C8b

I really just thought that the lessons were great and that I would like to have it in the future as much as possible because they were fun and easy.

Some were boring other were not boring I did'nt like ecmonic.

The program as a whole was mostly review for me so sometimes it was rather boring. The process of repetition gets really monotonous after a while.

I think that SWRL should use this method in all the schools to teach the students, because I learned a lot more from doing these tests, than the way the other method is used in the school.

I learned some about these lessons but if I had to choose I don't think I'd prefer having these lessons again. They were boring!

I felt that some of the lessons were drawn out and got boring sometimes also I felt that there were too many lessons dealing with one subject after a while I started to hate doing Swrl because we had so many to do.

For vocabulary improvement this series was too repetitive. People who want to learn new words will practice them at home and are bored with lengthy repitition, the ones who don't want to learn use these lessons as time consuming projects. Its sad, vocabulary improvement is necessary, but a small introduction to the word and an inticement to make them want to learn the word is the answer to the problem.

The lessons were redundant and boring. I felt that there were too many tests; overtesting makes SWRL depressing. There was no break from the repetitious pattern of the lessons which were drably similar. In the future each lesson should have a different "twist" to it. This would slow down the dull pattern.

First of all, I thought the sentence examples were stupid. The word fill-ins in paragraphs were monotonous and cumbersome. Secondly, the tests were too easy. By clues from the actual test, you can find out the answers. With that kind of testing, you don't even need to read the lessons. The idea is good, but the approach is rotton. As a whole, I think the system is awful and won't get anywhere.

I think you have a good idea but you should make different lessons for different levels of inteligence, because I was boared with the lessons that were to easy. But I did learn alot when the phobias came. (who knows, maybe someday I will use the phobias I learned)

The lessons got boring and dragged on. Some of the stories were dumb. Acted like we didn't know anything.

It would be good to have a lesson once a week but not for a long period of time.

The lessons should be harder matteral So when we're done we learn something that we didn't know a lot about.

I think the lessons were alright. They didn't but me that much but I don't think the rest of the class liked them. And when I marked down no on #14, I mean that having them every week is to much.

That way of learning, by repetition, in my opinion is dull and can get monotonous. It might fit some type of classes but it didn't fit me. Some of the sentences you made up were corny.

I think the SWRL concept is a good idea but it needs a lot of working on. I think if SWRL is to be a sucessful program, the people at SWRL must find ways to shorten the lessons which I think are so long they become dull and boring. Vocabulary development should be something a student looks forward to and likes to take part in. SWRL is presently far from being that kind of program, but with a little work it can be.

Thank you for picking our class. You saved us from a lot of home work.

It would probably help if we had these very week because we can learn more words faster instead of waiting to hear them on the streets. I learned new words.

They really didn't teach anything special. Most of them I already knew how to do. I didn't find them any bit interesting.

D8a

These tests and lessons were okaye. Some were easier than others. They taught a lot of new material to me, that I never knew about.

Some were to hard to understand. Shoud explane more about them.

If we had them instead of other English it would be alot more interesting

the pictures was for frist graders.

They seem worth while. But I wouldn't want to have them all the time, because then they would become boaring and we wouldn't like them.

Most of the lessons were to easy but some were ok

I think this should be done in all English classes.

I think you used to much instruction you should get to the point

The tests were great at first but we had so many it was boring. The subject of the lessons also made it boring, easy, or okay.

On the very last lessons the instructions were hard to understand.

I felt that the lessons were constructed for a much lower age level. Though they did teach some areas they were still much to easy.

After a while they got tiring. Try to make them more interesting.

These tests were easy sometimes and hard other time. I liked it better than doing other things in English.

I liked them a lot better than our other work in class. They were funnier.

The first couple of them were really good but they got harder.

All of the lessons and tests were just about right. I liked doing them because they taught me stuff I didn't know. I really liked the lessons because we could work at our own pace.

their shouldn't be so many lesson and there are to many pages of work on a lesson you should cut them down

D8b

I think the test were helpful in helping us learn about it.

You should use the back's of the paper so you don't wast.

I hated the hole thing

I think Swrl did a nice job in going this good luck!

The part I like the lest the most was when you have to grade it yourself but the oral was grate

Some of them didn't make sense.

I thought there were too many of the lessons. Because there isn't enough time to do them in.

Most of lessons were too long. It was hard to remember things on to the next days when you needed them some of the lessons got boring after a while like economics and phobia you shouldn't make them quite so long.

I thought they were good because they help me learn more and different things, thing that are helpful.

I liked them better than reading out of our text books. It was alot more interesting.